OPERATOR MANUAL

for the

Kodak RP X-Omat Processor, Model M6B
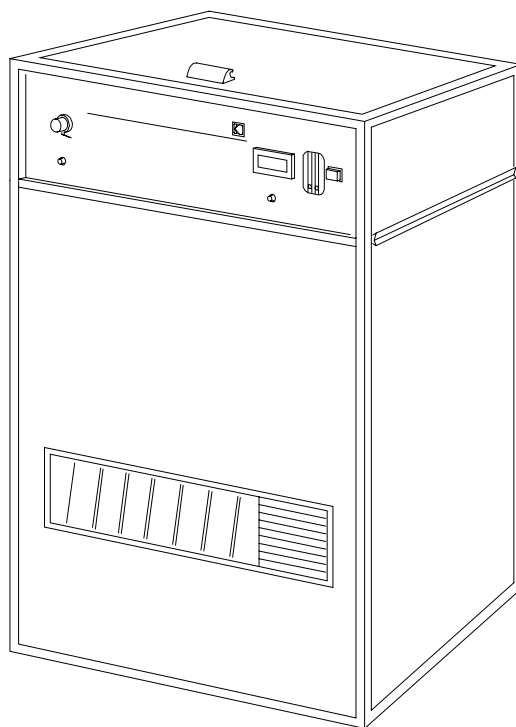
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WARNING

To avoid hazardous conditions, keep floors and floor coverings around your *Kodak X-Omat* Processor and associated drains clean and dry at all times. Any accumulation of fluids from mixing tanks, drain lines, etc, should be cleaned up immediately. In the event of an accumulation of liquid due to backup, overflow, or other malfunctions of the drain associated with your *Kodak X-Omat* Processor, call a plumber or other contractor to correct any problem with the drain. Kodak accepts no responsibility or liability whatsoever for the serviceability of any drain connected to or associated with a *Kodak X-Omat* Processor. Such drains are the sole responsibility of the customer.

IMPORTANT

Use qualified service personnel only to do all necessary adjustments and procedures.

Table of Contents

**Cover, Panels, and
Major Components**

Labels: TOP COVER, DISPLAY PANEL, RECEIVING-END ACCESS PANEL, RECEIVING BIN
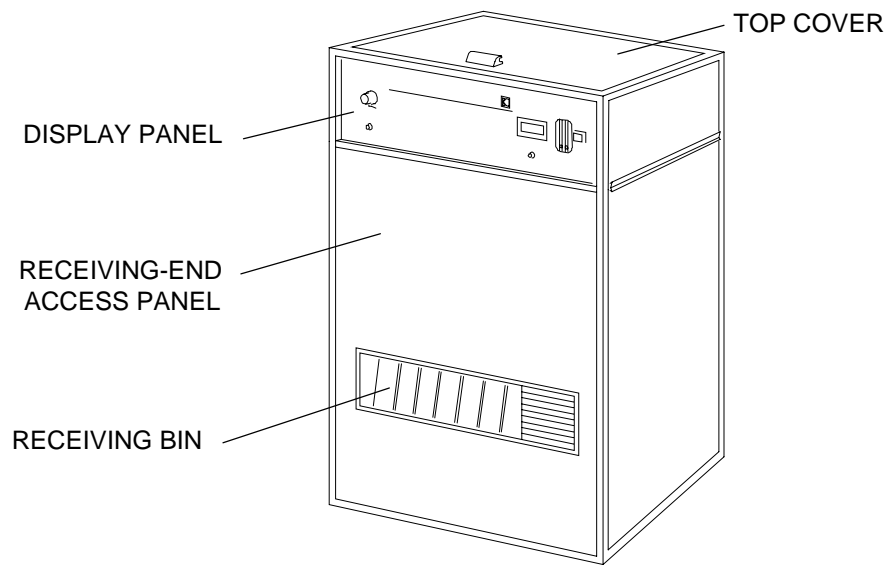
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Figure 1 Receiving-End View of Processor

Labels: RUN SWITCH, MAIN CIRCUIT BREAKER CB1, DEVELOPER DRAIN VALVE, FIXER DRAIN VALVE, FEED TRAY, AUXILLIARY RUN SWITCH, WASH DRAIN VALVE
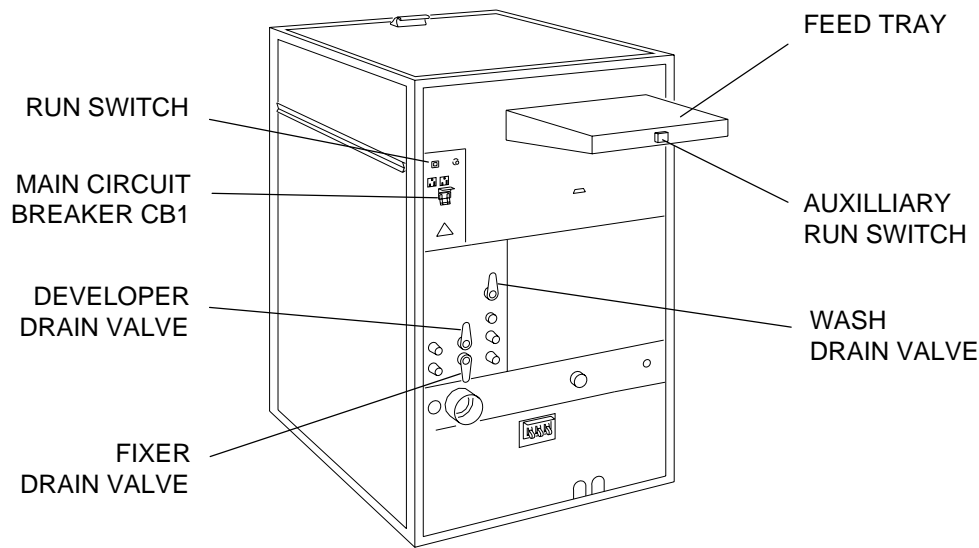
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Figure 2 Feed-End View of Processor

EVAPORATION
COVERS

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DEVELOPER/FIXER
CROSSOVER ASSEMBLY

FIXER/WASH
CROSSOVER
ASSEMBLY

SQUEEGEE
ASSEMBLY

ENTRANCE
DETECTOR
ASSEMBLY

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WASH
RACK

FIXER
RACK

DEVELOPER
RACK

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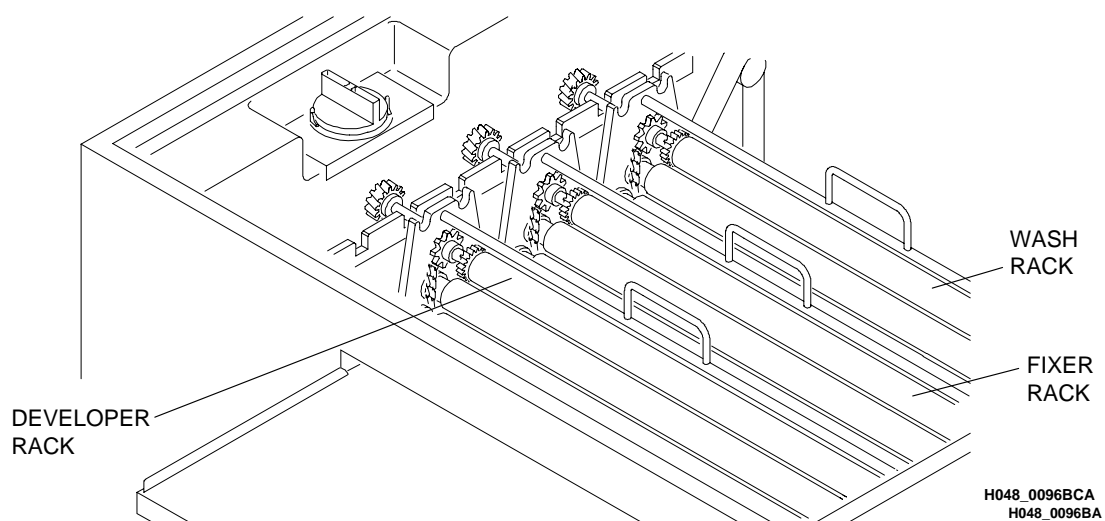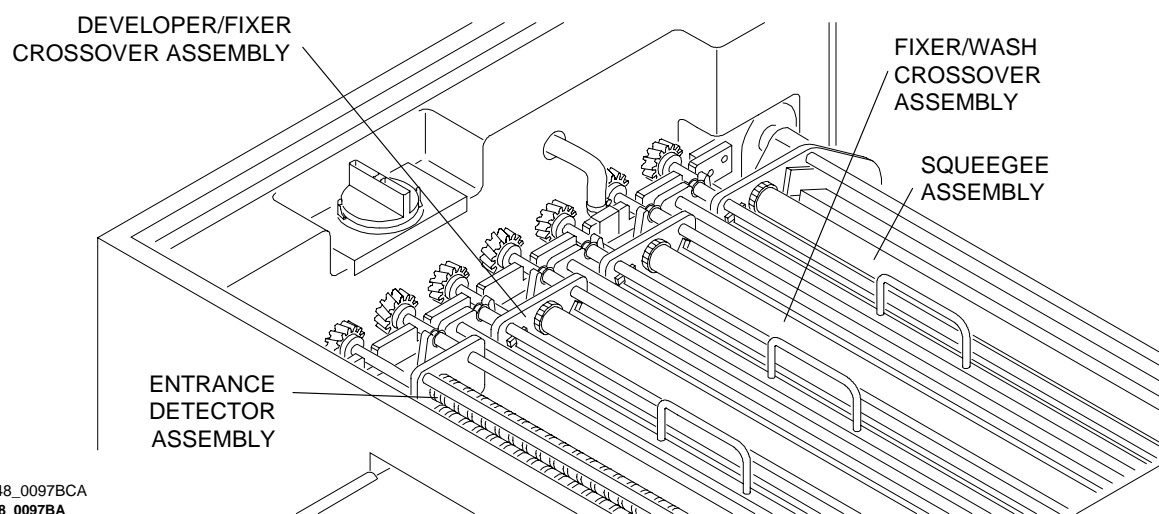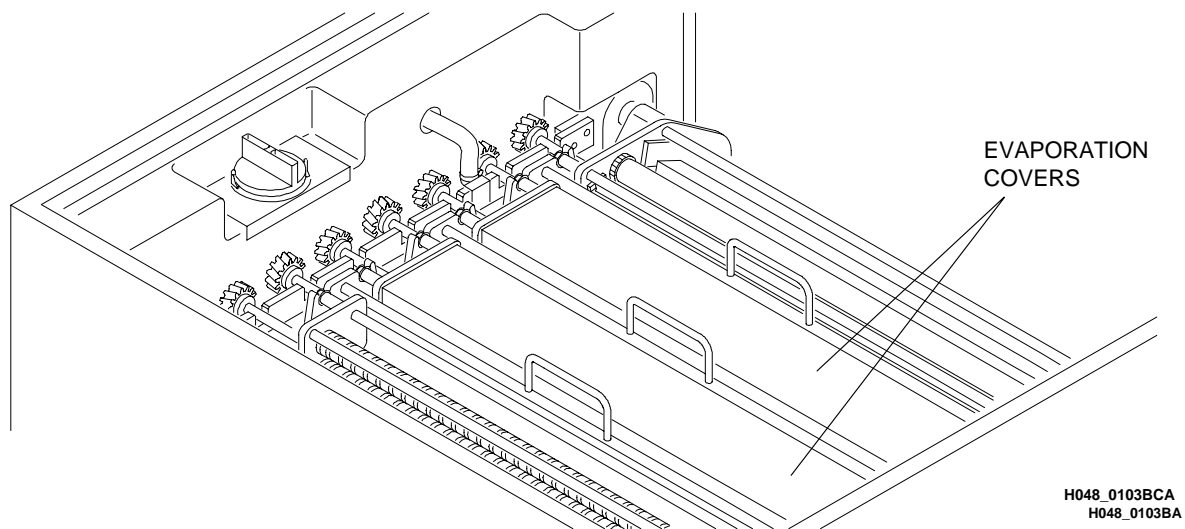
Figure 3 Evaporation Covers, Crossover Assemblies, Racks, and Squeegee Assembly

NOTE

The *Kodak* RP *X-Omat* Processor, Model M6B, processes all films designed for standard processing with *Kodak* RP *X-Omat* Developer Replenisher and *Kodak* RP *X-Omat* Fixer Replenisher or equivalents.

Start-Up

[1] Close the wash drain valve.

[2] Turn on the water supply.

[3] Move the wall power switch to the "ON" position.

[4] Move the main circuit breaker, CB1, on the processor to the "I", or energized, position.

[5] Check the following:

- Developer, fixer, and water solutions:
  - Make sure that solutions are up to the overflow position. (Make sure that the replenishment supply is adequate.)
  - Check for surface movement which indicates that the recirculation pump is operating.
- Make sure that all Rack Assemblies are installed correctly.
- Make sure that all Crossover Assemblies are installed correctly.
- Make sure that the Evaporation Covers are installed.
- Make sure that the Cover of the processor is closed.

[6] Feed a cleanup film when the developer temperature reading is 35°C (95°F) on the Developer Temperature Meter. See Figure 4.

[7] Check for replenishment during film feeding. The Fixer and Developer Replenishment Floats on the Display Panel should be pulsating.
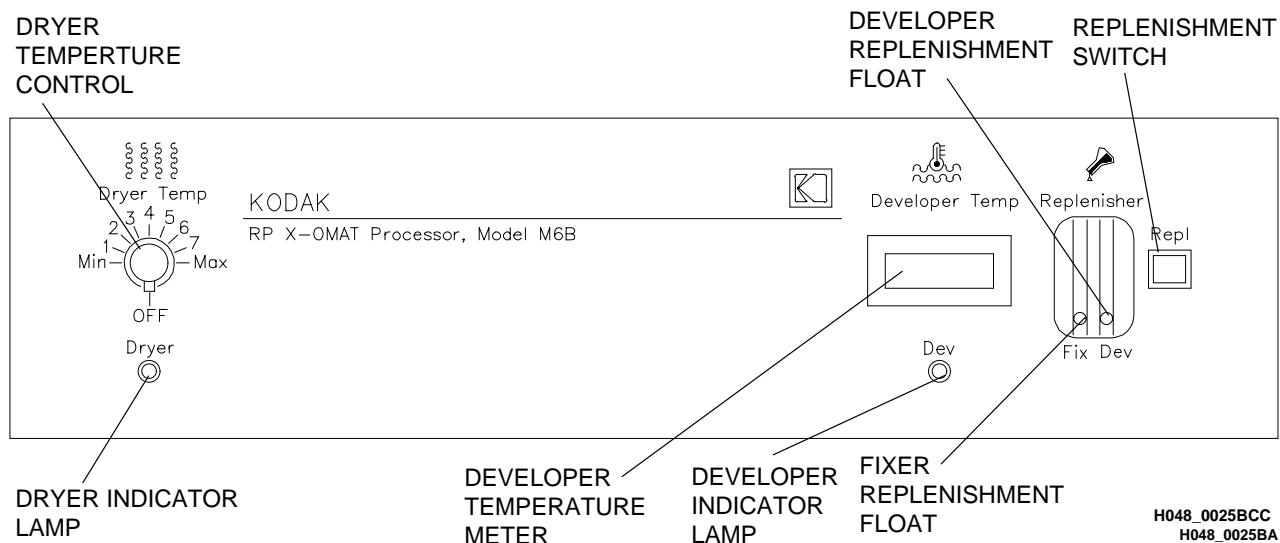

Figure 4 Processor Display Panel

Operating Note

WARNING

Parts are moving within the processor. Keep hands and loose clothing out of the processor.

During operation, periodically check the developer temperature and look for movement of the fixer and developer replenishment floats.

Shutdown

[1] Move the main circuit breaker, CB1, on the processor to the "0", or deenergized position.

[2] Move the wall power switch to the "OFF" position.

[3] Turn off the water supply.

[4] Open the wash drain valve.

[5] Perform the "Care and Cleaning" and "Preventive Maintenance" procedures on pages 9 and 10.

[6] Leave the top cover open approximately 51 mm (2 inches).

Film-Feeding Procedure

Sheet Film: See Figure 5 on page 8 for the correct film-insertion procedure. Arrows indicate the direction in which films are transported into the processor. To avoid over-replenishment, feed the films as illustrated. Feed films *square* with the edge of the film guide.

Feed multiple films simultaneously.

CAUTION

- **Do not** try to pull the films back out of the processor once you have fed them into the processor.
- **Do not** allow more than 100 films to accumulate in the receiving bin at one time.

Roll Film (35 mm): Use a sheet of film as a leader. Make sure that the sheet film is wider than the roll film and at least 17.8 cm (7 inches) long. Using 1-inch-wide tape, such as *3M SCOTCH* Brand Polyester Film Tape No. 850, fasten the film to the leader, making sure that the adhesive side of the tape is not exposed. Most other types of tape are not acceptable, because their bases are soluble in the processing solutions.

1 each

35 x 43 cm
or
14 x 17 in.

1 each

35 x 35 cm
or
14 x 14 in.

1 each

30 x 40 cm
or
11 x 14 in.

1 each

24 x 30 cm
or
10 x 12 in.

1 each

24 x 24 cm
or
$9\frac{1}{2}$ x $9\frac{1}{2}$ in.

1 each

18 x 43 cm
or
7 x 17 in.

2 each

18 x 43 cm
or
7 x 17 in.

2 each

8.84 m (29 ft.) lengths

2 each

18 x 24 cm
or
8 x 10 in.

1 each

18 x 24 cm
or
8 x 10 in.

1 each

$6\frac{1}{2}$ x $8\frac{1}{2}$ in.

2 each

18 x 24 cm
or
$6\frac{1}{2}$ x $8\frac{1}{2}$ in.

2 each

13 x 18 cm
or
5 x 7 in.

2 each
10 x 10 cm
or
4 x 4 in.
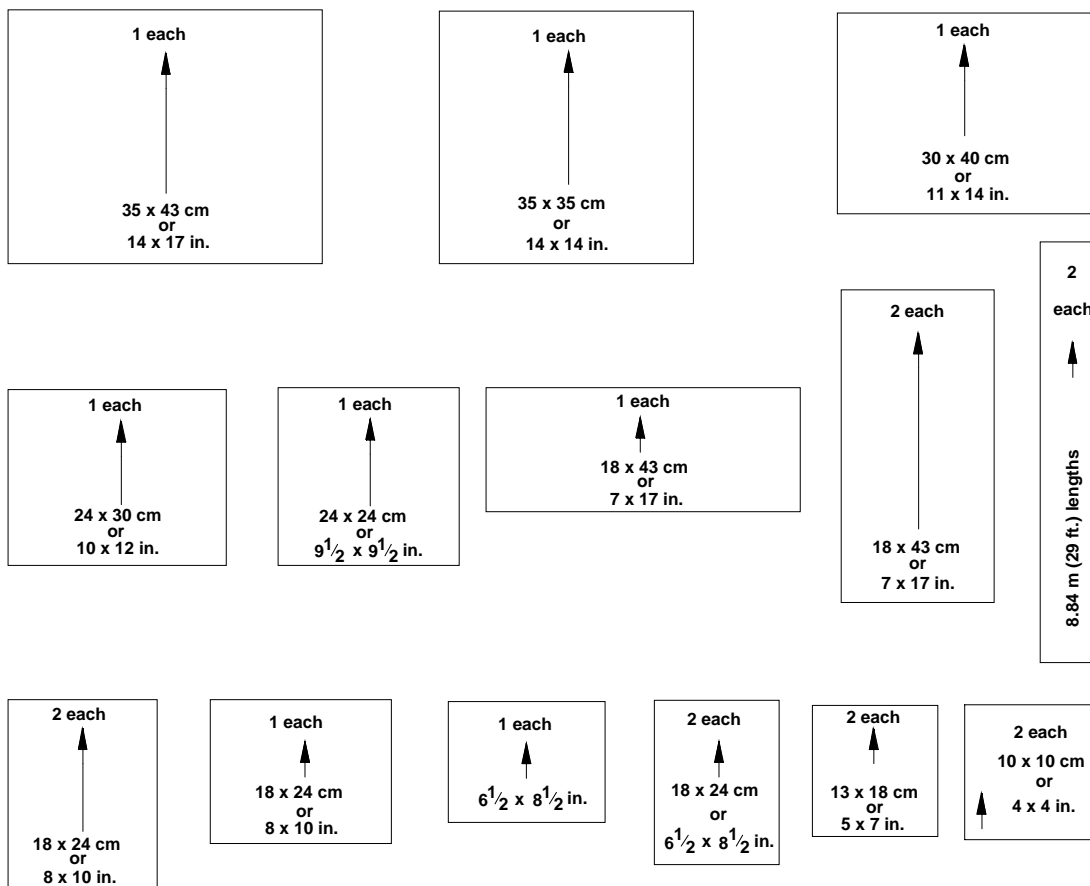
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Figure 5 X-Ray Film Sizes

Daily Procedures

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┌─────────────────────┐
│ **WARNING** │
└─────────────────────┘

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Wear rubber gloves, safety glasses, and protective clothing when doing any daily maintenance procedure.

IMPORTANT

• Report any change in the operating condition of your processor to qualified service personnel.

• Reliable operation of the processor requires that all parts be cleaned, lubricated, and adjusted properly.

• Prevent biological growth in the wash tank by draining the wash tank daily.

[1] Move the main circuit breaker, CB1, on the processor to the ''O'' position.

[2] Move the wall power switch to the ''OFF'' position.

[3] Turn off the water supply.

[4] Open the wash drain valve to drain the wash tank.

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CAUTION

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Handle these assemblies carefully to prevent changing their alignment. **Do not** clean the racks, crossover assemblies, or squeegee rollers using abrasive materials. Do not wash the roller racks and assemblies with water hotter than 37.5°C (100°F).

[5] Remove the evaporation covers, entrance detector assembly, both crossovers, and the squeegee assembly.

[6] Clean these parts with warm water and a damp cloth.

[7] Dry all the parts with a clean cloth and allow the parts to air dry overnight.

[8] Use a clean cloth to wipe all chemical residue from the processing section of the processor. To prevent contamination, do not use the same cloth for the fixer and developer sections.

[9] Leave the top cover open approximately 51 mm (2 inches) whenever the processor is shut down.

Weekly Procedures

[1] Move the main circuit breaker, CB1, on the processor to the "O" position.

[2] Move the wall power switch to the "OFF" position.

[3] Turn off the water supply.

[4] Open the wash drain valve.

CAUTION

To prevent fixer/developer contamination when you remove the fixer rack, place the splash guard between the developer and fixer tanks. Use the rack drip tray when you remove or install any of the racks.

SPLASH
GUARD
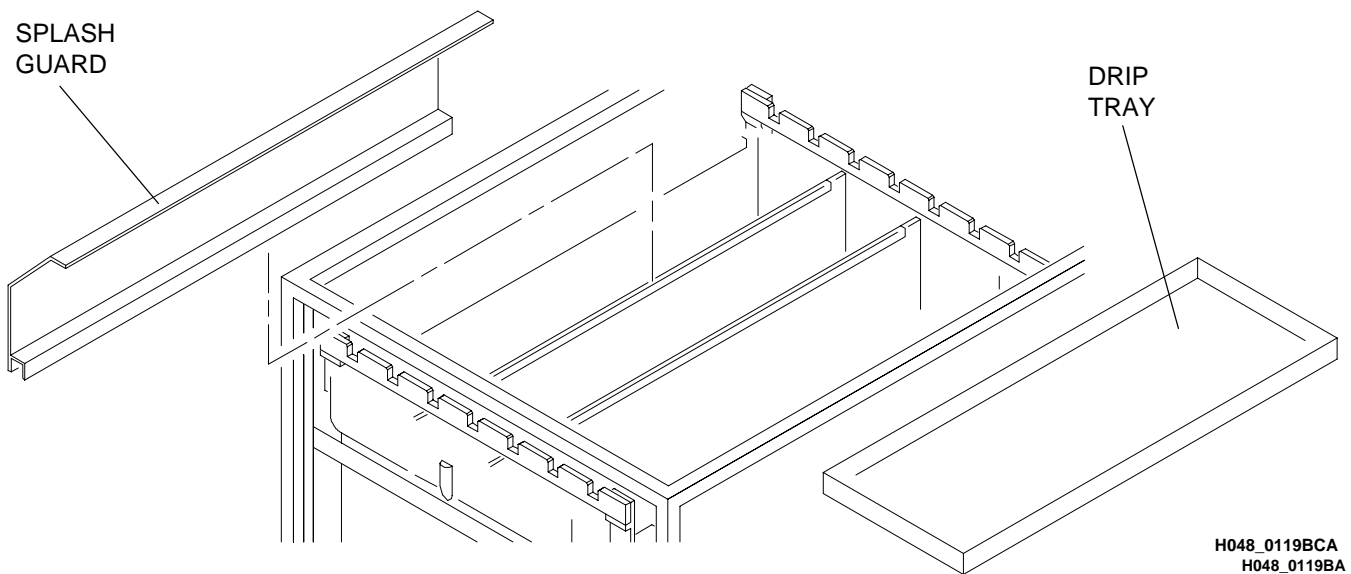
DRIP
TRAY

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Figure 6 Splash Guard and Drip Tray

[5]   Remove the evaporation covers, all crossover assemblies, and all racks.

[6]   Rinse and wipe the removed parts with a damp cloth. Do not immerse the racks in water.

[7]   Clean the entrance detector assembly with a soft fiber brush and warm water. Allow it to air dry before processing film.

[8]   Check that the rack rollers turn and rotate freely.

[9]   Check the space between the turnaround side plates and the rack side plates. The space must be equal and the plates parallel on both ends.

CAUTION

Install the racks slowly, and make sure that the splash guard is installed between the tanks.

[10]   Install the racks, crossover assemblies, and evaporation covers. Check that each assembly is correctly positioned.

[11]   Close the wash drain valve.

[12]   Move the wall power switch to the "ON" position.

[13]   Move the main circuit breaker, CB1, to the "I" position.

[14]   When the developer light cycles, use a thermometer of known accuracy and check the solution temperature in the developer tank. The processor is preset to maintain a temperature of 35°C (95°F). Only qualified service personnel can make a developer temperature adjustment.

**Checking the
Replenishment Rates**

IMPORTANT

- **This procedure is for M6B Processors with a Serial Number of 10,000 or above.**
- Do this procedure every 3 months.

[1] Remove the receiving-end access panel.

[2] With a graduated cylinder under the replenishment check tube, turn the valve down and press the ''REPL'' SWITCH for 13 seconds. This is the length of time that a 14-inch film causes the replenishment pump to operate.

[3] Compare the average of 2 or more measurements with the film and chemical specifications of the manufacturer.

[4] Have qualified service personnel adjust the Replenishment Pump, if necessary.

REPLENISHMENT
VALVE

REPLENISHMENT
CHECK TUBE

GRADUATED
CYLINDER

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H048_0135AA**
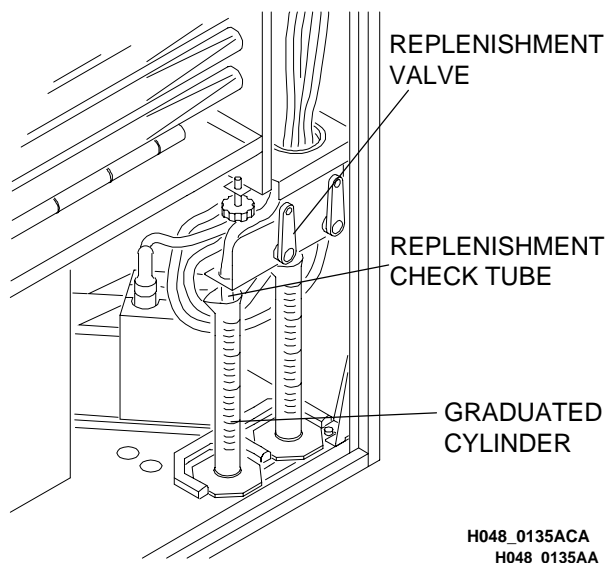
Figure 7 Checking the Replenishment Rates

DRYER
TEMPERATURE
CONTROL

REPLENISHMENT
SWITCH

KODAK
RP X-OMAT Processor, Model M6B

Dryer Temp
Developer Temp   Replenisher

Dryer
Dev   Fix Dev

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Figure 8 Processor Display Panel

Flooded Replenishment	For low film volume, a "Flooded Replenishment" mode can be selected to overcome chemical deterioration. The Model M6B is preset for "No Flooded Replenishment". **Only qualified service personnel or an authorized dealer representative can make the adjustment to "Flooded Replenishment".**
Water Conservation	The Model M6B is preset for the water conservation mode. **Only qualified service personnel or an authorized dealer representative can make the adjustment from this mode.**

Points to Remember:

IMPORTANT

- **Use qualified service personnel only to do all necessary adjustments and procedures.**
- Many film transport and sensitometric difficulties in the following chart can be caused or aggravated by inadequate hardening of the emulsion due to under-replenishment of developer and/or fixer. Another cause of inadequate hardening may be deterioration of developer replenisher due to age or storage at too high a temperature.
  Developer replenisher should be mixed in a quantity not to exceed a two-week supply.
- Changes in processing recommendations may occur.
- The electrical box should only be opened by qualified service personnel using electrostatic discharge protection.

1	2	3	4	5	6	
						1. Transport Failure
						2. Surface Artifacts
						3. Abnormal Film Densities
						4. Wet Films
						5. Low Solution Levels
						6. Overlapping of Films
•					•	Film Feeding Error *Feed only single thicknesses of film. Feed the next film only after the film feed signal sounds. If there is no film feed signal, refer the difficulty to qualified personnel.*
		•	•			- Feed only compatible films. - Check that the dryer is heating.
•					•	Check that all racks and crossovers are seated correctly.
	•					Check that the surfaces of all the rollers are clean and smooth, especially in the developer turnaround.
•			•			Check that the dryer air tubes are in the correct position.
	•		•			Remove any dirt from the dryer rollers and air tubes, especially the slots. Use a bottle brush and rinse with water.
	•			•		Check the replenishment rates.
	•		•			Adjust the dryer temperature control setting to the **lowest** possible temperature that still allows good drying.
	•					Remove any buildup of debris from the feed tray and detector rollers.
	•					Clean any bacterial growth in the wash tank with a mild solution of chlorine bleach. Use 2 fluid ounces (60 mL) of bleach per 1 gallon (3.8 L) of water. Wipe tanks with a damp cloth.
•	•	•		•		Check that drain valves are completely closed. Check that the tanks are full.
•	•	•	•	•	•	Change any incorrectly mixed or exhausted chemicals. If the chemicals are contaminated, see qualified service personnel. Fill the replenishment tanks if necessary. *Mix the developer replenishment in quantities not to exceed a 2-week supply.* *Always use a splash guard and rack drip tray when lifting the fixer rack to prevent contaminating the developer.* *Mix chemicals as directed.* *Make sure you use the proper amount of Kodak RP X-Omat Developer Starter or equivalent.*

1	2	3	4	5	6	1. Transport Failure 2. Surface Artifacts 3. Abnormal Film Densities 4. Wet Films 5. Low Solution Levels 6. Overlapping of Films
•	•					Check that *all* rollers are in place, positioned and rotating correctly.
•	•					Check that *all* roller gears, sprockets, and idlers are engaged.
•	•				•	Replace any rollers with broken or worn gudgeons.
•	•					Replace any bearings which do not allow the turnaround rollers to rotate correctly.
•	•					Check the rack chain tension. Check that rollers do not hesitate, and that the chain does not jump.
		•				Check for movement of the solutions at the surface with the processor on. Movement indicates recirculation. If you do not observe any movement, see qualified service personnel.
	•					If incoming wash water is dirty, clean the rack and tank thoroughly. Change the incoming water filter.
•					•	Check that the turnaround assembly is adjusted correctly. Make sure that the turnarounds are square with the rack.
		•				Check incoming water temperature. Temperature must be between 4.4°C (40°F) and 26.6°C (80°F).
		•				Check that the correct bulb and safelight filter are in the safelight and that the safelight is approximately 1.22 m (4 ft) from the feed tray and work surface.
•		•				Check that the cover and panels are tight on the processor. Check that there is no leak in the light-tight gasket.
•						10 x 10 cm films — feed films diagonally if they fail to transport reliably.
					•	Check the time delay. For all transport speeds, the buzzer should sound once the trailing edge of the film has advanced 3 inches into the processor.
•	•	•			•	Check that the tank solution levels are at the overflow weir.

This publication is part of a series of instruction books that provides technical support information on the *Kodak* RP *X-Omat* Processor, Model M6B. For ease of referencing and reordering the related publications, the following chart provides part numbers for each of the publications.

Publications for M6B Processors - Serial Numbers 15,000 and Above						
	Complete Binder	Operator Manual	Site Specs	Installation Instructions	Service Manual	Parts List
Publication Part No.	246630	1C7061	1C7070	246626	246628	246629

Publications for M6B Processors - Serial Numbers 10,000 to 14,999						
	Complete Binder	Operator Manual	Site Specs	Installation Instructions	Service Manual	Parts List
Publication Part No.	635881	1C7061	1C7070	635884	635885	635882

Publications for M6B Processors - Serial Numbers Below 10,000						
	Complete Binder	Operator Manual	Site Specs	Installation Instructions	Service Manual	Parts List
Publication Part No.	Not Available	1C7061	1C7070	635812	635828	635860

It is recommended that these publications be kept in the binder provided. If an individual document gets misplaced or destroyed, reorder a copy from your Eastman Kodak Representative.

Kodak warrants this *Kodak* RP *X-Omat* Processor, Model M6B, to function correctly for 6 months from the date of initial installation, when installed within one year from date of shipment.

Warranty Repair Coverage

If this equipment does not function correctly during the warranty period, the dealer in *Kodak* RP *X-Omat* Processors who sold the equipment will provide or arrange for repair of the equipment during the dealer's normal working hours. Such repair service will include any adjustments and/or replacement of parts required to maintain your equipment in good working order.

How To Obtain Service

Should equipment require service, refer to the sales contract for details on whom to call for service, or contact the dealer in *Kodak* RP *X-Omat* Processors who sold the equipment.

Limitations

Warranty service is limited to the contiguous United States, the island of Oahu in Hawaii, and certain areas of Alaska.

This warranty does not cover—

- circumstances beyond the control of Kodak,
- misuse,
- abuse,
- attachments,
- accessories,
- alterations not marketed by Kodak (including service or parts to correct problems resulting from the use of such attachments, accessories, or alterations),
- failure to follow the operating instructions as recommended by Kodak,
- supply items.

Kodak makes no other warranties, expressed or implied, for this equipment.

Repair without charge is the only obligation of both Kodak and the dealer under this warranty. **Kodak will not be responsible for any consequential or incidental damages resulting from the sale, use, or incorrect functioning of this equipment, even if loss or damage is caused by the negligence or other fault of Kodak.**

Such damages for which Kodak **will not** be responsible, include, but are not limited to, loss of revenue or profit, downtime costs, loss of use of the equipment, cost of any substitute equipment, facilities or services or claims of your customers for such damages.

This limitation of liability will not apply to claims for injury to persons or damage to property caused by the sole negligence or fault of Kodak or by persons under its direction or control.

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Customer Equipment Services Division